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ABSTRACT

Histories of media research commonly assume that models of mass media effects have progressed from direct or hypodermic effect models to indirect or multi-step models. Recently, however, B. Reeves and E. Wartella have objected to this assumption. To evaluate their alternative hypotheses, 163 studies from over 88 sources, representing nearly a century of publications on children and the mass media, were submitted to meta-analysis. After information was collected on the year of publication; medium studied; samples; type of statistical analysis; and independent, dependent, or intervening variables, the studies were categorized under 10 main subject areas: attitudes, life conditions, viewing condition, media behaviors, media psychological factors, media content, behaviors, psychological variables, and advertising. The data showed support for Reeves's and Wartella's observation that indirect effects models are found throughout the history of research on children and the mass media. Findings do not, however, support their hypothesis that research topics recur cyclically with the introduction of each mass medium into the social system. (A list of the publications included in the sample and the indexing instrument are appended.) (Author/MM)

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A HISTORY OF RESEARCH ON CHILDREN AND THE MASS MEDIA: AN EMPIRICAL INVESTIGATION

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ABSTRACT

A common thread throughout the histories of research on mass media impact is the notion that models of mass media effects have progressed from hypodermic effect models to indirect models of mass media effects. Recently, however, Reeves and Wartella have suggested that the history of research on children and the mass media follows a different historical path. The present paper uses empirical methods to study the history of research on mass media and youth. Findings show support for Reeves and Wartella's observation that indirect effects models are found throughout the history of research on children and the mass media. The data do not, however, support their suggestion that research topics in this literature recur cyclically with the introduction of each mass medium into the social system.

A common thread throughout the histories of research on mass media impact is the notion that models of mass media effects have progressed from direct or hypodermic effects models to indirect or multi-step models of mass media effects (see, e.g., Weiss, 1969; DeFleur and Ball-Rokeach, 1975; McLeod and Reeves, 1980; Davis and Baran, 1981; and Lowery and DeFleur, 1983). Weaver and Gray (1980) state that the major emphasis of mass media research can be classified by three time periods. In the first period (early 1800s-1930s), according to their classification scheme, one finds mainly "descriptive histories" of the print media which focus on the lives and influence of major editors and publishers. During the 1930s-1950s, they state, research followed a hypodermic model of undifferentiated mass media effects; and from the 1950s to the present, research models tend to follow Katz and Lazarfeld's (1955) conceptualization of the two-step flow theory, incorporating an indirect or multi-step effects model in mass media research. It is also in this later period that Katz (1959) argued for the need to concentrate less on what media do TO people and more on what people do WITH media, and Klapper and Merton influenced the development of middle range theories in mass communication research.

More recently, however, Reeves and Wartella (1982) have suggested that this conventional history does not describe research on children and the mass media.[1] Two claims made by these authors will be examined in the present study. Reeves and Wartella state that contrary to what would be expected if models progressed from hypodermic to indirect effects models (as described in traditional histories of mass media research), conditional and individual difference studies

[1]Reeves and Wartella based their observations on a thorough review of the literature which was partially conducted in a seminar on the history of research on mass media and youth. As participants in this seminar, the authors wish to thank Professors Reeves and Wartella for the opportunity to explore and discuss this literature. Ideas which emerged from the seminar and from discussions with Reeves and Wartella provided the groundwork for this study. Thanks is also extended to Professor Baughman whose historical expertise was often tapped in identifying and locating key historical works.

of mass media effects are common throughout the history of research on mass media and youth. In addition, these authors suggest that research questions relating to children and the mass media are cyclical and follow a predictable pattern with the introduction of each new medium into the social system. They state,

> Thus, there appears to be a cycle recurring in the literature of research on film, radio and television effects on children and youth: research on children's use of the medium gives way to research on the health effects of the medium and lastly, effects of media content on knowledge, attitudes and behavior are addressed. (p.22)

In this paper, the history of research on children and the mass media will be treated as an empirical investigation. Particular attention will be given toward examining the hypotheses suggested by Reeves and Wartella that (1) conditional and individual difference studies of mass media effects occur throughout the history of research on children and the mass media and (2) research topics in this literature recur cyclically in a predictable pattern.

The Sample

A total of 163 studies from over 88 sources, including journal articles, books, book chapters, and magazines are included in this study and represent nearly a century of publications examining the mass media and children (1911 to 1980). As Glass, McGaw and Smith (1981) point out, a major problem in any meta-analysis is in devising a sampling frame which is representative of the population under study (in this case, research on children and the mass media). The present study used a multiple search method in order to develop an adequate sampling frame. A frame for literature dating from 1950 to the present was constructed through the use of a library computer search of literature on children and the mass media. These computer searches accessed Psychological Abstracts, Sociological Abstracts, and ERIC,[2] yielding about 1,000 studies for the sampling population. Fifty-three additional post-1950 studies were identified through searching early (pre-1960)

[2]The authors wish to thank Professors Reeves and Wartella for making the computer listing of post-1950 publications available for sampling purposes in this study.

bibliographies of research on television, and these were added to the computer listing for sampling purposes. One hundred and fifty studies were drawn at random from this combined list to represent post-1950 research on children and the mass media.

A sampling frame for pre-1950 research on mass media and youth was constructed following a somewhat different sampling scheme, more analogous to "snowball" sampling methods. In this case, frame construction began by consulting the appropriate card catalogue headings at the University of Wisconsin's Memorial Library, Journalism Reading Room, and the Wisconsin State Historical Library. These listings provided books, pamphlets, and journal articles dealing with the subject. The bibliographic references of these sources were then checked. In addition, journals which were sources for studies in the post-1950 sample and which were published prior to 1950 were searched for any pre-1950 studies on children and the mass media. These procedures yielded approximately 300 studies on children and the mass media published before 1950; radio and motion picture studies are nearly equally represented in number. These 300 studies were then combined with the 150 studies systematically sampled from the post-1950 listing in order to complete the sampling frame for the present study. Table 1 shows a complete listing of journal sources which were included in the study, and a complete list of all publications included is shown in Appendix 1.

Methods

Data gathered on each publication (N=163) included information concerning the year of publication, medium studied, samples, use and type of statistical analysis, independent variables, dependent variables, and intervening or "other" variables (see Appendix 2).

Table 1
A List of Journals Included in the Sample

ADVERTISING AND SELLING
AMERICAN BEHAVIORAL SCIENTIST
AMERICAN PSYCHOLOGIST
AMERICAN SCIENTIST
AMERICAN SOCIOLOGICAL REVIEW
AMERICAN TEACHER
ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE
AUDIO-VISUAL COMMUNICATION REVIEW
AUDIO VISUAL INSTRUCTION
CENTRAL STATES SPEECH JOURNAL
CHILD DEVELOPMENT
CHILD STUDY
CHILD WELFARE
CHILDHOOD EDUCATION
COMMUNICATION QUARTERLY
CONTEMPORARY EDUCATION
COUNSELING AND VALUES
CRIMINOLOGY
EDUCATION
EDUCATION ON THE AIR
GAZETTE
GENETIC PSYCHOLOGICAL MONOGRAPHS
INTERNATIONAL JOURNAL OF GROUP TENSIONS
INTERNATIONAL REVIEW OF EDUCATIONAL CINEMATOGRAPHY
JOURNAL OF ADVERTISING RESEARCH
JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY
JOURNAL OF APPLIED PSYCHOLOGY
JOURNAL OF BROADCASTING
JOURNAL OF COMMUNICATION
JOURNAL OF CONSUMER RESEARCH
JOURNAL OF EDUCATION
JOURNAL OF EDUCATIONAL PSYCHOLOGY
JOURNAL OF EDUCATIONAL RESEARCH
JOURNAL OF EDUCATIONAL SOCIOLOGY
JOURNAL OF EXPERIMENTAL EDUCATION
JOURNAL OF EXPERIMENTAL SOCIAL PSYCHOLOGY
JOURNAL OF JUVENILE RESEARCH
JOURNAL OF PERSONALITY AND SOCIAL PSYCHOLOGY
JOURNAL OF PSYCHOLOGY
JOURNAL OF SOCIAL ISSUES
JOURNAL OF SOCIAL PSYCHOLOGY
JOURNAL OF VOCATIONAL BEHAVIOR
JOURNAL OF YOUTH AND ADOLESCENCE
JOURNALISM QUARTERLY
MOTION PICTURE MAGAZINE
PERCEPTUAL AND MOTOR SKILLS
PHAEDRUS
PHI DELTA KAPPAN
PRINTERS INK
PRINTERS' INK MONTHLY
PSYCHOLOGICAL BULLETIN
PSYCHOLOGICAL REPORTS
PUBLIC OPINION QUARTERLY
RADIO RESEARCH
RECREATION
RELIGIOUS EDUCATION
SCHOOL AND SOCIETY
SCHOOL RECORD
SCIENTIFIC MONTHLY
SECONDARY EDUCATION
SOCIALIST REVIEW
STUDIES IN PUBLIC COMMUNICATION
SURVEY
TALKS
TEACHERS COLLEGE RECORD
TELEVISION QUARTERLY
THE AMERICAN CITY
THE ENGLISH JOURNAL
THE PSYCHOLOGICAL RECORD

As mentioned above, each independent and dependent variable was recorded in the coding process. "Other" variables were also recorded and include any variable the authors discussed in the study as affecting the relationship between independent and dependent variables. Other variables were recorded whether they were introduced as controls in the analysis or were simply mentioned as possible intervening or conditional variables. A variable classification and coding scheme was then devised, clustering a number of categories under ten main subject areas: attitudes, life conditions, viewing conditions, media behaviors, media psychological factors, media content, behaviors, psychological variables, and advertising. The complete classification scheme and examples are listed in Appendix 3.

Results: Sample Characteristics

Medium

Eight forms of mass media were mentioned in the studies: television (76); motion pictures (55); experimental films (5); radio (46); books (10); newspapers (10); comic books (5); and magazines (5).[3] Figure 1 shows the distribution of studies published by year. As shown, the distribution is bimodel with peek periods occuring first from about 1925 to 1947 and again from 1969 to 1979.

It is interesting to speculate why these peeks occur, and one is tempted to explain the relative abundant periods in terms of the availability of funding and governmental policies toward the mass media. For example, the period from 1925 to 1947 is historically associated with Congress establishing the Federal Radio Commission (FRC) in 1927 and later the Federal Communication Commission (FCC) in 1934. In addition, CBS began investing money in mass communication research in the 1930s, leading to the establishment of the Bureau of

[3] Figures here total more than 163, since many studies examined more than one mass medium.

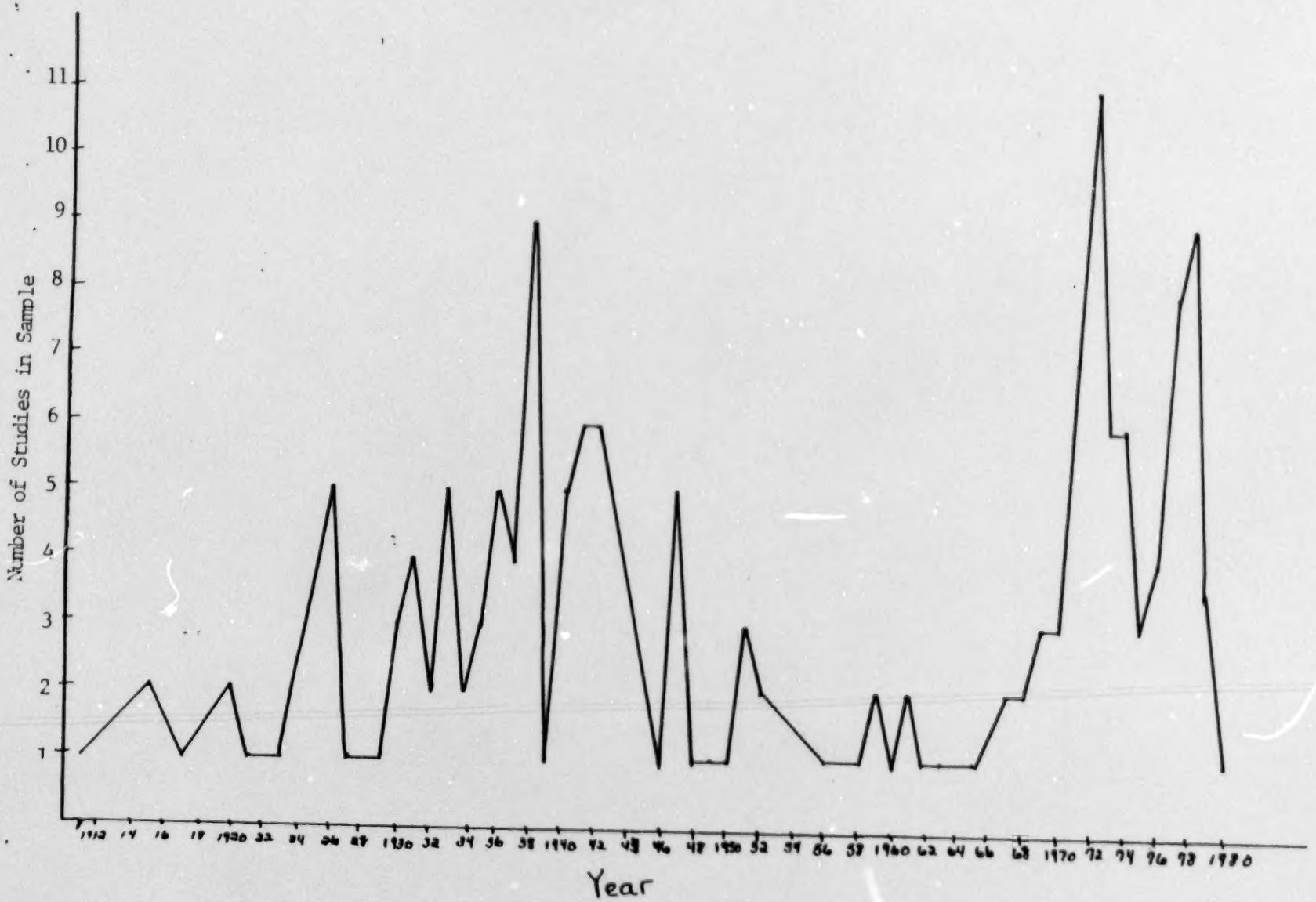

Figure 1. Number of Studies by Year

Applied Social Research at Columbia University in 1937 and the collaboration of Stanton and Lazarsfeld. In 1929, another influential research center was established, Social Sciences for the Rockerfeller Foundation, and 1932 marked the publication of the first Payne Fund Studies of motion pictures and children. From 1969 to 1979, the influences which might be associated with an increase of mass media research appear to be more directly a result of influences stemming from governmental interest in mass media effects: the formation of the Commission on Obscenity and Pornography in the late 1960s; President Johnson's 1968 National Commission on the Causes and Prevention of Violence and his 1967 National Advisory Commission on Civil Disorders; ~~the 1968 National Commission on the Causes and Prevention of Violence~~; and research which resulted from petitions by Action for Children's Television (ACT) to the FCC in 1970 and to the FTC in 1972 to regulate television advertising designed for children. Although such speculation is an interesting and important issue, this study does not directly address these relationships. The reader interested in these issues, therefore, is referred to Reeves and Baughman (1982) for a discussion of the relationship of communication research to mass media regulation and to Weaver and Gray (1980) for a discussion of the relationship between mass media research and funding.

The data do show that once a medium is introduced into society, research on that medium appears to continue well past a period of "initial interest," (see Table 2). For example, although research on children and radio peaked from 1938 to 1942, studies on children and radio are still being conducted in the 1970s. A closer look at these later publications shows, contrary to what one might expect, that radio was the focus of study in all but two cases where radio was looked at as part of the child's overall media use patterns.

Table 2
Frequency of Studies in Sample on Children and Motion Pictures, Radio, and TV by Year

Year	Motion Pictures	Radio	Television
1911	1		
1915	2		
1917	1		
1920	2		
1921	1		
1923	1		
1926	5		
1927	1		
1929	1		
1930	2	1	
1931	4		
1932	2	1	
1933	2	3	
1934	2		
1935		3	
1936	1	5	
1937	2	2	
1938	4	5	
1939		1	
1940	1	5	
1941		4	2
1942	2	5	
1946	1		
1947	4	1	
1948	1		
1949		1	
1950	1	2	1
1951		1	2
1952		1	1
1953	1	1	1
1956	1		1
1958		2	2
1959			1
1960			2
1961	1		1
1962			1
1963	1		1
1965			1
1967	1		
1968	1		
1969	1		2
1970	1	1	1
1971	1	2	5
1972	2		11
1973	1	1	5
1974			6
1975			3
1976			2
1977		1	8
1978			9
1979			4
1980			1
TOTALS	56	49	74

Research Methods

Seventy percent of the studies in the sample employed some type of statistical analysis, ranging from simple percentages to more complex methods associated with panel designs. Eight studies reported conducting content analysis of the media; 15 lab experiments, 31 school experiments, 2 field experiments, 32 general surveys, 30 school surveys, and 3 observational studies were reported. Fifty-eight studies employed no statistical analysis but gave expert opinion about mass media and children, and 11 publications reviewed the work of others.

It is interesting to note that this pattern changes, however, when each medium is looked at individually (see Table 3). For motion pictures, the most frequently mentioned methods were expert opinion (36%), school experiments (16%), general survey (14%), and school survey (14%). For radio studies in the sample, the most frequently mentioned were expert opinion (32%), general survey (22%), school survey (21%), and school experiments (13%). For television, the four most frequently mentioned methods were school survey (21%), school experiments (19%), general surveys (16%), and expert opinion (16%). Over time, methodological changes seem to occur as new methods are introduced into the field. In this sample, school experiments were introduced in 1930; content analysis in 1940; laboratory experiments in 1946; field experiments in 1971; and observational techniques in 1972. Once introduced, the methods continue to be utilized over-time.

Samples

Of the 113 studies which reported using samples, 84% used local samples, 8% used national or regional samples, 4% used several local samples, and 4% didn't mention the sample origins. Forty-two of these studies reported special characteristics of the sample: emotionally disturbed children (1);

Table 3

Data Collection Methods by Type of Mass Medium

Method	Motion Pictures	Radio	Television
Content Analysis	0	3 (6%)	5 (6%)
Laboratory Experiment	6 (10%)	0	9 (10%)
School Experiment	9 (16%)	7 (13%)	16 (19%)
Field Experiment	1 (2%)	2 (4%)	1 (1%)
General Survey	8 (14%)	12 (22%)	14 (16%)
School Survey	8 (14%)	11 (21%)	18 (21%)
Observation	0	0	3 (4%)
Expert Opinion	21 (36%)	17 (32%)	14 (16%)
Review of Research	5 (8%)	1 (2%)	6 (7%)
Totals	58 (100%)	53 (100%)	86 (100%)

juvenile delinquents (2); socially disadvantaged children (5); minorities (5); class rooms (14); all boys -- typically aggression studies -- (12); all girls -- for a study of perceived importance of beauty and beauty advertisement exposure -- (1); and two studies used the child's age as a surrogate measure for specific mental skills or stages of development.

One hundred and five studies included children as the unit of analysis in their samples. The childrens' ages ranged from 3 years to 23 years old, and the mean age was 12. Other units of analysis include: motion picture theaters located within a half block of saloons, mothers, childrens' programs, parent-child pairs, families, network programming, and criticisms of programming. Sample sizes ranged from 12 to 37,505. Twenty-eight percent included less than 200; 40% less than 400; 46% less than 700; and 50% less than 1,000. (Additional findings describing the sample are discussed in Appendix 4).

Historical Trends: Testing the Reeves-Wartella Hypotheses

Conditional Propositions Throughout: As stated earlier, Reeves and Wartella (1982) suggest that conditional propositions and psychological explanations of mass media effects are common throughout research on children and the mass media. In order to test their hypothesis, the studies in the sample were broken down into the three eras defined by Weaver and Gray (1980). The first era spans from 1911 to 1929 and is traditionally thought to be dominated by descriptive histories of mass media effects. The second era, from 1930 to 1949, is thought to be characterized by research based on an hypodermic or undifferentiated model of mass media effects. The third era is from 1950 to the present, and research in this era is thought to be based upon indirect or conditional models of mass media effects. If conventional accounts of the history of mass media research describe studies on children

and the mass media, one would not expect other (intervening or contingent) variables to be mentioned in the literature until the third era, post-1950. If, however, Reeves and Wartella are correct in stating that such variables appear throughout the history of research on children and the mass media, then one would expect little differences across the three eras.

Table 4 shows support for the Reeves-Wartella hypothesis. There are little differences between eras in the percentage of studies which mentioned other variables, indicating adherence to an indirect effects model throughout the history of this literature. In era 1, 60% (9) of the studies mentioned other variables; in era 2, 55% (34); and in era 3, 65% (56). A chi-square test confirms that differences between eras are, indeed, not significant. The evidence, therefore, supports the Reeves and Wartella observation that the conventional history does not tend to describe research on children and the mass media; rather, indirect models of mass media effects are dominant throughout the history of research in this literature.[4]

It seems, however, that the Weaver and Gray (1980) claim that pre-1930 research on the mass media is mainly descriptive in nature is supported by the

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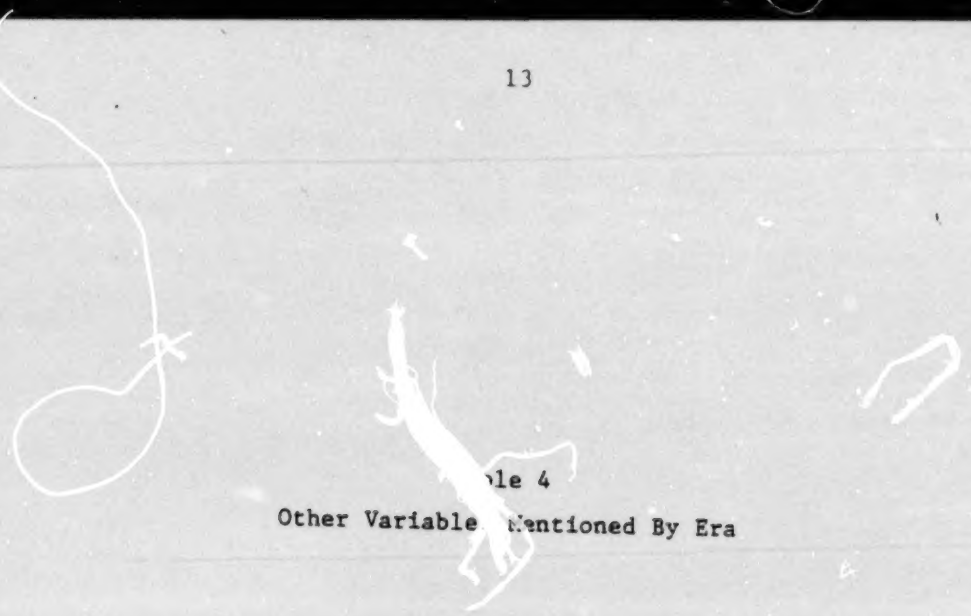
[4]Although this conclusion can be critized on the grounds that "other variables" are operationalized both as variables actually included in the analysis and as variables simply discussed as having an impact on the phenomenon under study, the authors do not consider the operationalization problematic. Direct and indirect effect perspectives are looked at as world views which guide not only analysis selections, but also the researcher's conceptualization of the relationships under study. A researcher endorsing the direct effects perspective would be quite surprised to find evidence of indirect influences, as were Lazarsfeld, et al. (1948) in their study of the 1940 presidential election in Erie County, Ohio. Indeed, one of these authors (Berelson, 1959) was so affected by the realization that the field could no longer embrace a direct effects model that he later wrote that studying the media was no longer worthwhile and declared the field dead (Lowery and DeFleur, 1983). Research conducted from an indirect effects perspective, on the other hand, would necessarily discuss other variables affecting the relationship under study, but would not, however, necessarily include all these variables in the analysis. Therefore, the fact that a researcher mentions indirect influences is considered evidence that an indirect model of mass media effects provided the conceptual basis for the study.



ble 4

Other Variable Mentioned By Era

ERA 1	ERA 2	ERA 3
9 (60%) N=15	34 (55%) N=62	56 (65%) N=86

$\chi^2 = 1.6$ (n.s.)

data. Sixty percent of studies in era 1 offered expert opinion (as opposed to conclusions based on systematic quantitative or qualitative methods), compared with 36% expert opinion in era 2 and 11% expert opinion in era 3. As noted earlier, however, the diversity of empirical methods employed in the study of mass media and youth appears to be a function of time; as new techniques appear, they are utilized in the research.

Historical Trends: Cyclical Topics: Reeves and Wartella also suggest that topics of research on the mass media occur in predictable patterns: as each new medium enters into the social system, research concerns follow a specific order, beginning with research on children's use of the medium, turning to research on health effects of the medium, and finally to effects of media content on a child's knowledge, attitudes, and behaviors. In order to test this hypothesis, independent and dependent variables were clustered into three topic areas:[5] (1) children's use of the medium; (2) health effects; and (3) knowledge, attitudes, and behaviors. Because only three studies addressed health effects of the mass media on children (one in 1938--motion pictures; one in 1939--radio; and one in 1942--motion pictures and radio), this topic was excluded from subsequent analysis. The frequency of topics was then plotted by year for each medium (motion pictures, radio, and television). According to the hypothesis, one would expect: (1) topics to be introduced in an invariant order across medium (use of media, health effects, and, lastly, media effects on knowledge, attitudes, and behaviors) and (2) as a new topic is introduced, research on other topics declines "giving way" to research on the more recent topic.

[5]These general topics were made up of the following variable categories which are defined in Appendix 3. Children's media use = 15 + 16 + 17 + 18 + 21 + 22; knowledge, attitudes, and behaviors = 1 + 25 + 26 + 27 + 28 + 29 + 30 + 35 + 36 + 37 + 38 + 39 + 45 + 46 + 47 + 48 + 49 + 50 + 58 + 59 + 65 + 66 + 67 + 68 + 69. Because health effects were not coded as a separate category, all code sheets were reviewed in order to retrieve this information.

Figures 2, 3, and 4 show the topic trends by year for each medium. It is clear from these figures that the data do not support the cyclical trend hypothesis. For motion pictures and television, studies of the effects of the medium and of the child's use of the medium occur simultaneously in the literature, and there is no evidence that research topics "give way" to newer topics over time. For radio, studies of the child's use of the medium preceed studies on the medium's influence on the child's knowledge, attitudes, and behaviors by about two years. However, the hypothesis as stated by Reeves and Wartella requires such patterns to occur for research topics in each medium. Since the pattern does not occur across medium, the cyclical trends hypothesis is rejected.

Suspecting that the null findings discussed above may have been due to too large topic categories, a similar procedure was followed to attempt to tease out any cyclical topic trends. In this case, 15 different topic categories were constructed:[6] (1) attitudes and interest; (2) home and peer; (3) individual characteristics of the child; (4) good behaviors; (5) bad behaviors; (6) displacement effects; (7) medium characteristics; (8) viewing conditions; (9) media content; (10) learning; (11) prosocial-psychological; (12) antisocial-psychological; (13) other psychological; (14) unhealthy mental effects; and (15) advertising. Again, the results do not support the hypothesis that topics are cyclical and that early topics "give way" to latter ones. Once a topic is introduced, it tends to be prominent in the literature for a number of years, even as other topics enter the field.

[6]These general topics were made up of the following variable categories which are defined in Appendix 3. Attitudes and interest = 1 + 46; home/peer = 2 + 4 + 5 + 6 + 7; individual characteristics = 8 + 9 + 10 + 70; good behaviors = 35 + 36; bad behaviors = 38 + 39; displacement = 59; medium characteristics = 11; viewing conditions = 15 + 16 + 17 + 18 + 19 + 20 + 21 + 22 + 56; media content = 25 + 27 + 28 + 26 + 30; learning = 39; prosocial-psychological = 45; antisocial-psychological = 48 + 50 + 58; other psychological = 47 + 55; unhealthy mental effects = 49; and advertising = 65 + 66 + 67 + 68 + 69.

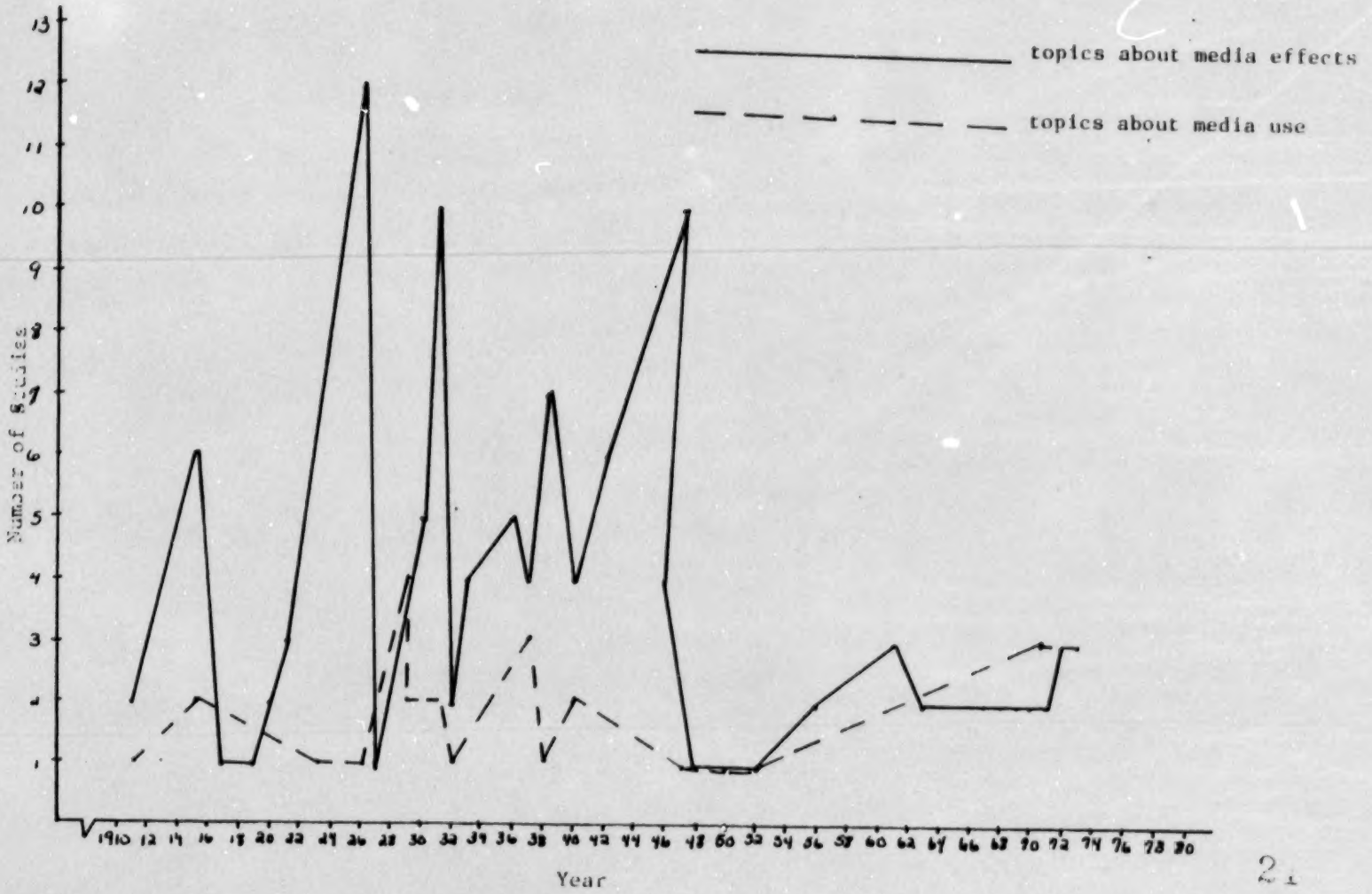


Figure 2. Topic Trends: Motion Pictures

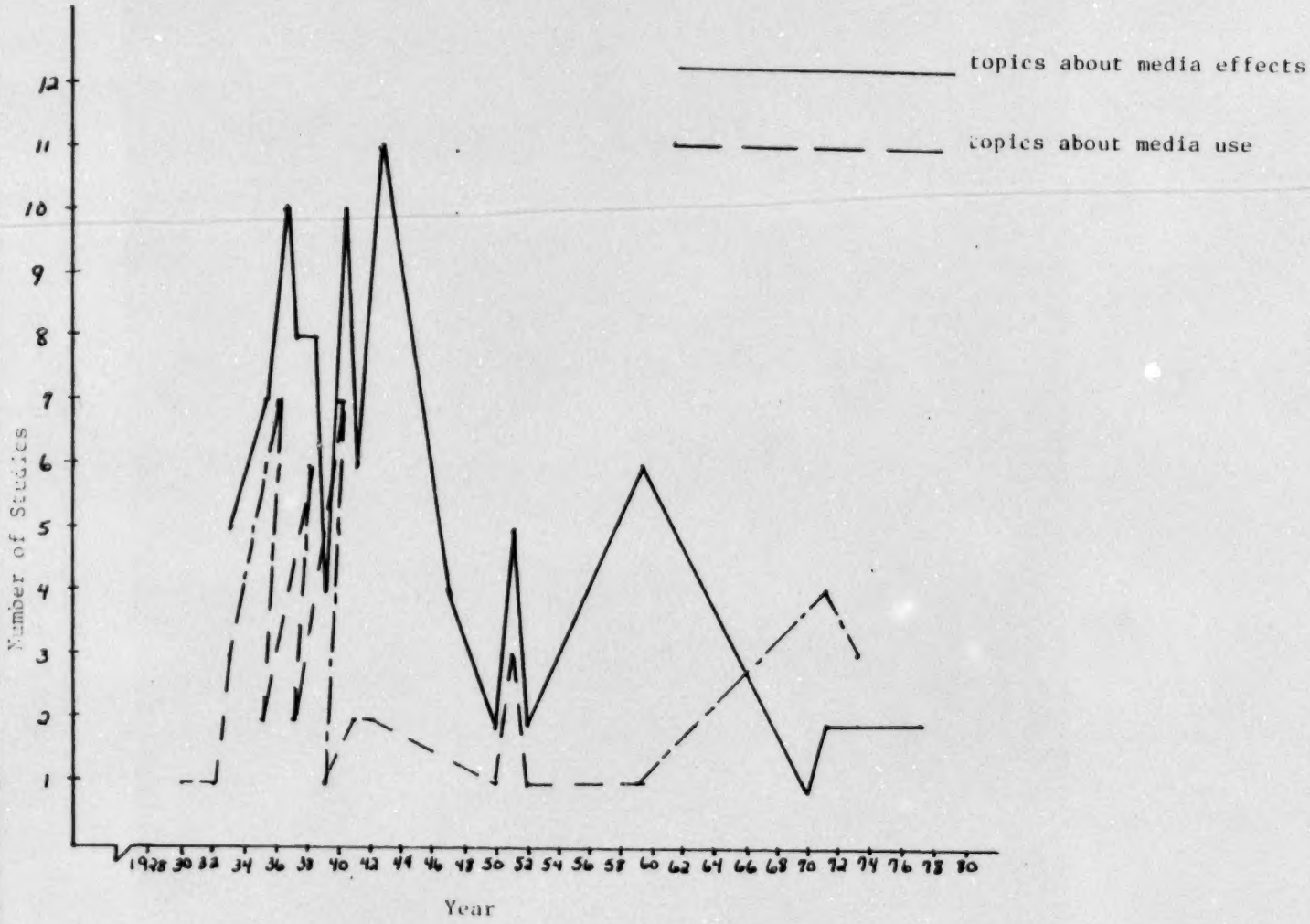

topics about media effects
topics about media use
Number of Studies
Year
1928 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80

Figure 3. Topic Trends: Radio

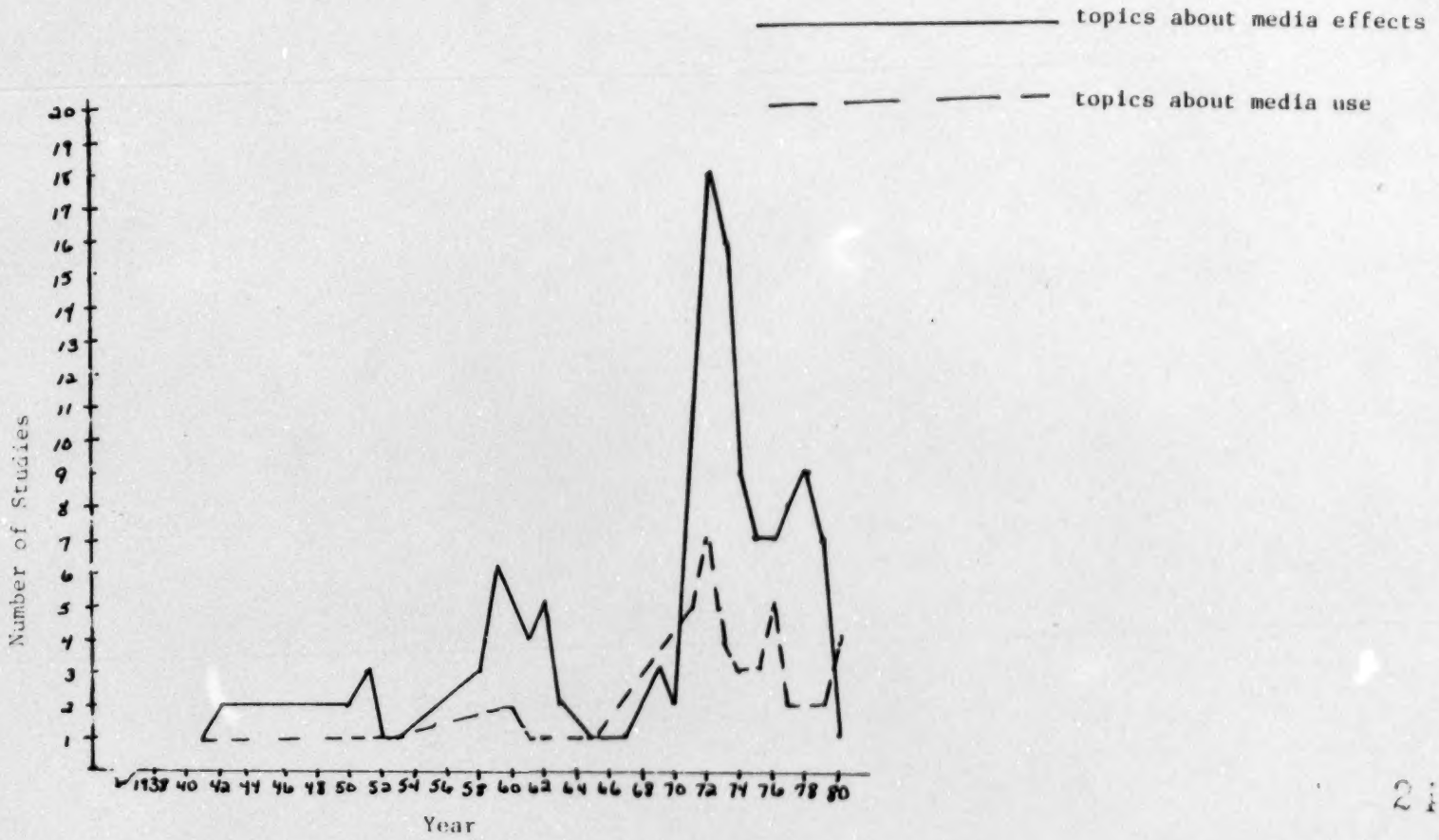


Figure 4. Topic Trends: Television

Therefore, the hypothesis of cyclical or recurring topics with the introduction of each medium is rejected. Rather, the data suggest that within the first ten years of research on any medium, research topics include: individual characteristics, viewing conditions, and media content (see Table 5). Three initial research questions seem to emerge, therefore, in the first ten years of research on children and an innovative medium: What is the content of this medium? How does the content affect different children? and (3) How do these effects vary, according to viewing contexts? Aside from this common beginning, research on each medium seems to address research topics independent of other medium topic agendas.

Conclusions

This study has shown that the history of mass communication as it is typically discussed in the literature does not describe the history of research on children and the mass media. Support was found for Reeves and Wartella's (1982) observation that conditional propositions and psychological explanations are common throughout the history of research on the mass media and youth. This area of research, therefore, does not appear to have its beginnings in a direct-effects period typically assumed to represent initial efforts of naive mass media researchers. Support was not found, however, for Reeves and Wartella's notion that a particular sequence of topics recurs with the introduction of each mass medium into the social system. Instead, each medium appears to have an initial set of research questions in common; however, there is not evidence that an invariant sequence of topics exists, independent of the medium under study.

Table 5
Motion Pictures, Radio, and Television by Variables
Mentioned During the Medium's History of Research*

MOTION PICTURES

Years	Variables
1-5	individual characteristics
	media content
	viewing conditions
	bad behavior
	antisocial-psychological
	prosocial-psychological
6-10	other-psychological
11-15	displacement
	attitudes and interests
26-30	good behavior
31-35	unhealthy mental effects

RADIO

Years	Variables
1-5	viewing conditions
6-10	bad behavior
	advertising
	home/peer
	individual characteristics
	attitudes and interest
	other-psychological
	antisocial-psychological
	bad behaviors
	media content

TELEVISION

Years	Variables
1-5	media content
	individual characteristics
	viewing conditions
	attitudes and interest
11-15	home/peer
16-20	advertising
36-40	other-psychological
	bad behavior
41-45	displacement
	media characteristics
56-60	antisocial-psychological
66-70	good behaviors
71-75	unhealthy mental effects

*Research topics for each medium are listed next to the years they first appear in the literature. Year 1 is defined as the first year research on the medium appeared in our sample.

The fact that research on children and the mass media does not fit the traditional history of movement from a direct effects model to an indirect effects model should be of interest to all mass media researchers. Perhaps, the history attributed to our field represents only the work of a few, prominent media researchers. It is also possible that media research at the social systems level is well described by the traditional history with progression from the hypodermic model to limited effects models, influenced, perhaps, by the successful propaganda campaigns in WW I. However, research which looks at the individual child as the unit of analysis appears to follow a different historical development, apparently never totally embracing the hypodermic effects model.

The results of this study point to the importance of questioning the conventional historical account of mass media research and to the value of examining this history through empirical methods. Only by such methods can we construct an accurate historical record of research in our field with confidence.

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Appendix 1

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Appendix 2

CODE GUIDE

Research on Mass Media and Children

PRINT ALL INFORMATION CLEARLY

Coder name _____
Study Number _____

1. List full reference: _____
_____
_____

1a. Source of Information (circle the appropriate number)
(1) book/(2) journal/ (3) book chapter/ (4) thesis, dissertation
(5) pamphlet (6) other (specify) _____

2. Number of authors (If compilation, include editor) _____

2a. Author's full name:
(1) _____
(2) _____
(3) _____
(4) _____
(5) _____
(6) _____

3. Year of publication _____

4. Number of media studied _____

4a. Type of media studied: (check all that apply)

_____ Television
_____ Motion pictures (film)
_____ Experimental film (film produced especially for the study)
_____ Radio
_____ Books
_____ Newspapers
_____ Comic Books
_____ Magazines
_____ New technologies (computers, video games, etc.)
_____ Mass media vs. interpersonal communication comparisons

5. Did the study employ statistical analysis (e.g., percentages, tables, correlations, regression, etc.)?
   (1) yes (2) no

6. Type(s) of analysis: (check all that apply)

_____content analysis
_____lab experiment
_____school experiment
_____field experiment
_____general survey
_____school survey
_____observation
_____expert opinion (includes parents' and teachers' estimate of child's behaviors)

> NOTE: IF ONLY TYPE OF ANALYSIS CHECKED ABOVE WAS "EXPERT OPINION," THEN SKIP TO QUESTION #11

7. Are children in the sample?
   (1) yes (2) no

8. What ages of children are included in the sample? (*)
_____ youngest age
_____ oldest age

> (*) NOTE: If only grades of children are reported, use the following table to convert grades to ages.

grade - Age		Grade - Age		Grade - Age		Grade - Age	
K	5	4th	9	8th	13	12th	17
1st	6	5th	10	9th	14		
2nd	7	6th	11	10th	15		
3rd	8	7th	12	11th	16		

9. What kind of sample is used in the study? (check all which apply)
_____national sample
_____local (city or county)
_____regional (state or adjoining states)
_____other (specify)_____
_____authors don't say

10. Special characteristics of the sample (if applicable)
    _____LD (learning disabled)
    _____gifted
    _____emotionally disturbed
    _____juvenile delinquents
    _____socially disadvantaged (e.g., low SES, broken families)
    _____age differences in sample represent specific concepts (e.g., stages of cognitive development)
    _____minorities
    _____class rooms
    _____other (specify) _____

11. Sample size (number of people) _____
    NOTE: If more than one sample, give average number

12. Analysis Variables (THREE PARTS to this question)

    A. INDEPENDENT VARIABLES (list them)

    _____
    _____
    _____

    B. DEPENDENT VARIABLES (list them)

    _____
    _____
    _____

    C. OTHER VARIABLES (mediating variables, e.g.)

    _____
    _____
    _____

13. Topics covered in the study: (FIVE PARTS to this question)

    A. Behaviors: (Check all that apply, and specify each behavior)

    ___prosocial ("good") _____
    ___neutral _____
    ___antisocial ("bad") _____
    ___opinions _____
    ___use of the media _____
    ___frequency or amount of exposure to media _____
    ___juvenile delinquency _____
    ___other _____

13. Topics Covered in the study (Continued)

B. Psychological Factors: (Check all that apply, and specify each behavior)

___attitudes_____
___frustrations_____
___knowledge already held or intelligence_____
___learning_____
___gratifications_____
___interest in places or events_____
___content preferences_____
___enjoyment_____
___perceptions of reality_____
___other perceptions_____
___other_____

C. Media characteristics (check all that apply, and specify)

___content (e.g., violent content, sexy content, etc.) _____
_____
___medium characteristics (e.g., flickering lights, dark theaters, etc.)
_____

D. Social aspects: (check all that apply)

___family
___peers
___school
___other (specify)_____

E. Other topics not listed above (specify)_____
_____

END OF QUESTIONNAIRE

TAKE A MOMENT to record any problems you had with the coding or with decisions concerning the study. Make your comments in the space provided below.

COMMENTS:

Appendix 3

VARIABLE CLASSIFICATION SCHEME

CODING CATEGORIES FOR VARIABLES

ATTITUDES

01) Specific: (re:content): social attitudes, satisfaction with sexual self-image, characters, models, school, drugs, women, minorities, homework, aging and dying, conservation and wildlife, discrimination, other activities, reading, violence, political authority, government effectiveness, desire to move, attitude change, "good" content, agreement with model, values of movies

02) Parents' Attitudes: toward kid's media use, toward children's shows, opinions of child's behaviors and attitudes, anxiety

LIFE CONDITIONS

04) Home, psych: FCP, permissive conditions, parental attitudes toward child rearing, parental responsibility, parental guidance, parent-child interactions, year, ethics, verbal responses of mother, holiday season

05) Home, structure: Family size, father's presence, time father home while children are awake, violence in child's environment, family composition, number of parents living with child, foreign parents, nationality, home life, cultural standards, community traditions, number of children in family, sex of parent in one-parent homes.

06) Peer: Peer communication patterns, peer integration, peer interaction, interpersonal communication, companionship, social isolation

07) Demographic: SES, father's occupation, mother's education, rural-urban, population density, monthly rent, race, religion, income.

08) Individual characteristics: health, birth order, juv. delinquency, scouts, personality scores, sex, character, temperment, mental health

09) Development: grade, age, education

10) Intelligence: scholastic ability, verbal and nonverbal intelligence, moron, intellectual development, arithmetic scores, reading scores, grades, cognitive style, mental ability

11) Medium characteristics: admission price, camera zoom, program complexity, videotape, rate of presentation, TV-Intrp as news source, jittery images, subtitles (silent films), preferred theaters, number of words, number of syllables, imagery, sound effects, short flashes, narrator

Viewing Conditions

15) Who: with parents, with sibs, with peers, alone, with family, alone vs. with others

16) How: number of kids, number of adults, other activity while viewing, prestige of coviewer, home vs. school viewing, parental control, parsence/absence of audience, number of sets, topics of conversation

Media Behaviors

17) Time spent: time spent, amount of exposure, high vs. low viewers, popularity of medium, introduction of television, program popularity, parents tv time, listening to radio, frequency of attendence

18) Patterns: program choice, content preferences, use of other media, days and hours viewing, viewing style, media use patterns, movie appeal, news viewing, habits, educational show viewing, favorite actors, what's good to watch, time of day, addictio-, actractiveness of television

19) Other measures: attention to previous shot, involvement with shows, attention, intensity of viewing

20) Others: communicator, viewer, family filmed while viewing, family kept viewing diary

Media Psych

21) Watch: liking character, factors audience likes, uses and grats, what's good to watch, taste in program selection, reasons for program selection

22) Viewing skills: identification with character, distinguish between reality and fantasy, reality cues

Media Content

25) Bad: violent, aggressive, actor aggression, cartoon aggression, aggressive fantasy, poor role models, aggression against human clown, sexual content, characters negative about attending school, false values

26) Good: toothcare, prosocial content, educational, altruistic, helpful programs, social/moral/factual value, model competence, good social attitudes, health, ethics

27) Specific content: specific films and programs, emotional content, excitement, action, music, novelty, attractions of content, emotional news items, sex appeal, news, local vs nonlocal news content

28) Role models: expression of point of view, traditional sex roles, character attributes, characters, sex of models, credibility of characters, character and temperment of model, sexual pleasure of tv characters, model behaviors, attractiveness of character, sex appeal of model, traditional/nontraditional occupational roles, competency, lives of stars, movie star prestige

29) Learning: recall of broadcast items, recall of emotional content, number news items recalled, recall of central and peripheral content, knowledge gain, learning, complexity of recall, cultivation of intelligence, recall of aggressive acts, learning luck vs work ethic, knowledge of playing hookey, learning about places, stereotypes, learn content, world knowledge

Psychologi

30) Content types: programs, childrens' programs, neutral content, newscasts, program type, entertainment, fantasy, play and book dramatizations, kid's preferences, phoney sports, educational, give-a-way programs, general, funny papers, excitement, action, music, news

Behaviors

35) Prosocial: helping, politeness, generosity, gracefulness, courtesy, altruism, consideration for others

36) Good: adopting children, social achievement, toothcare, posture

37) Neutral: autonomic responses, facial expressions, imitation audible response, conversation topics, activity levels, play types, behavioral changes, search for natural parents, adoption, sex behaviors, social learning, neutral behaviors, playing with dogs, imitation, emotional sweating

38) Bad: Bad sportsmanship, running away from home, going to saloons, addiction, meal interference, dirty play, smoking, sleeplessness, poor grammar, indigestion, eating

39) Antisocial: Imitations of violent behavior, fighting, juv. delin., aggressive behaviors, aggression against human clown, last year's aggression, conflict with parents, disobedience, crime, burglary, murder, perjury, suicide, sexual promiscuity, conflict over program choice

Psychological Variables

45) Prosocial: patriotism, empathy, increasing morality, social responsibility, decrease in prejudice

46) Interest: in topics, future aspirations, political interest, art for people, music appreciation, information-seeking, sexual interest, taste in program content, imagination

47) Dreams: dreams, dream intensity, vividness of dream recall, unpleasant dreams, dream content, day dreams

48) Bad: dreamy imagination, acceptance of violent behaviors, emotional reactions to content, sleeplessness, dormant emotions (sex), fears, excitation, arousal, social isolation, anger, psychic exhaustion, distrust, distraction, clutivation of "untrameled imagination"

49) Mental bad: (dysfunctions), tension, neuroses, nervousness, neuroticism, introversion, distraction, emotional disturbances, anxiety

50) Antisocial: moral injury, demoralization, corruption, anti-Americanism, immorality, disregard for law

Other

55) Perceived reality: perceptions of reality, TV answers, perceptions of world, perceptions of humor, perceptions of cinema as true, learning about world, beliefs about way of life, impressions, acceptance of cinema as true, perceptions of government's effectiveness

56) Intervention-viewing: teacher instruction, teacher intervention, motion picture appreciation courses, preparing educational films

57) Intervention in industry: action to correct media, need for children's cinema, elimination of blind buying and block booking, censorship and control, criticism of children's shows

58) Perceptions of violence: reinforcement, vicarous reinforcement, acceptance of violent behaviors, reduction of inhibition against violence, perceptions of violent or good content, desentization to violence

59) Other: number of hobbies, relaxation, homework, leisure time, activity, day's experiences, desire to read, displacement of other "better" activities

60) Frustration: frustration

Advertising

65) Content: advertisment appeals, ad content, ad credibility, sex appeal, exposure to male/female in traditional vs nontraditional roles, type presentation, type conclusion, type appeal, type product

66) Ad psych: attitudes toward products, perceived product value, attitude toward program showing ad, expectation of receiving toys, mother's perception of product suitability, mother's perception of advertising quantity, interest in product premium, cognitive defenses against ads, distinguishing between ad and program, understanding ads, perceived importance of beauty and commercial themes (sex, beauty, youth) in social relations

67) Behaviors: Product requests, product purchases, effort (task persistence), use of product in household

68) Other-how to: marketing strategies, use of premiums, sources of information in ads (television, catalogues, friends, stores)

69) Ad learn: Product recognition, product knowledge, product recall, child's occupational knowledge/stereotyping/preferences

Appendix 4

SAMPLE CHARACTERISTICS: ADDITIONAL FINDINGS

Results: Additional Comments on the Sample

Sources

Although the sources included in the sample are quite varied, it is interesting to note that only eight sources account for 46% of the studies in the sample: (1) Annals of the American Academy of Political and Social Science, 9%; (2) Journal of Communication, 7%; (3) Child Development, 6%; (4) book chapters, 6%; (5) Journal of Broadcasting, 5%; (6) Child Study, 5%; (7) Education, 4%; and (8) Journal of Applied Psychology, 4%. Looking at these sources over time (see Table 4.1), it is clear that journals which were actively publishing studies of children and the mass media in the first half of the century have passed this role on to more recent and specialized journals.

Variables

For the sample overall, the most frequent independent variables studied were: content types, time spent with the medium, "bad" media content, viewing patterns, specific content, and role models in the media.[1] Table 4.2 shows the frequency of independent variables in studies for motion pictures, radio, and television. What is surprising is the agreement across medium on the important independent variables to study. For television, there are four prominent variables which account for 50% of variables studied: content types (20%), time spent with medium (10%), psychological-watching (liking character, uses and gratifications, e.g.) (10%), and "bad" media content (10%). For studies on children and radio, two variables account for 53% of independent variables examined: time spent with medium (17%) and content types (36%). For motion pictures, four variables account

[1] See Appendix 3 for definitions of each category.

Table 4.1

Frequency of Studies in the Sample For the Top Eight Sources by Year

Year*	ANNALS OF THE AMER. ACADEMY OF POLIT. & SOCIAL SCIENCE	JOURNAL OF COMMUNICATION	CHILD DEVELOPMENT	BOOK CHAPTERS	CHILD STUDY	JOURNAL OF BROADCASTING	EDUCATION	JOURNAL OF APPLIED PSYCH.
1915								
1926	3						1	
1930							1	
1933								1
1935	2					2	1	
1936			1			1		
1937								2
1940								2
1941	4							1
1942							1	
1947	4					4	1	
1951	1					1		
1952	1							
1958					1			
1959							1	
1970					1			
1971					1			
1972				9				
1973		1						
1974		3						
1975		3						
1976					1			
1977		4						
1978		1	2		2			
1979					1			
1980					1			

*Only years with at least one study from these journals are included.

Results: Additional Comments on the Sample

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For the sample overall, the most frequent independent variables studied were: content types, time spent with the medium, "bad" media content, viewing patterns, specific content, and role models in the media.[1] Table 4.2 shows the frequency of independent variables in studies for motion pictures, radio, and television. What is surprising is the agreement across medium on the important independent variables to study. For television, there are four prominent variables which account for 50% of variables studied: content types (20%), time spent with medium (10%), psychological-watching (liking character, uses and gratifications, e.g.) (10%), and "bad" media content (10%). For studies on children and radio, two variables account for 53% of independent variables examined: time spent with medium (17%) and content types (36%). For motion pictures, four variables account

[1] See Appendix 3 for definitions of each category.

Table 4.2
Independent Variables in Studies
By Motion Pictures, Radio, and Television

Variables*	Motion Pictures	Radio	Television
1. Attitudes			
2. Parent's Attitudes		2	
4. Home, Psychological		2	3
5. Home, Structure			3
6. Peer			2
7. Demographic			4
8. Individual Characteristics	2	1	3
9. Development		2	6
10. Intelligence		1	1
11. Medium Characteristics	1	2	1
12. View with whom			
16. How view			3
17. Time spent with medium	7	11	13
18. Viewing patterns	4	5	4
19. Other media behaviors			3
21. Psychological, watching			13
22. Viewing skills			
25. "Bad" content	9	1	13
26. "Good" content	4	1	2
27. Specific content	7	3	2
28. Role Models	1	1	6
29. Learning			
30. Content types	28	23	25
35. Prosocial Behavior			
36. "Good" Behavior			
37. Neutral Behavior			
38. "Bad" Behavior			
39. Antisocial behavior			1
45. Prosocial Psychological			
46. Interest	1	1	1
47. Dreams	2	2	
48. "Bad" Psychological	2	1	
49. "Bad" Mental			
55. Perceived reality	1		2
56. Viewing intervention	1		1
57. Industry intervention		1	
58. Perceptions of violence			
59. Kid's other activities	1		
60. Frustration			
65. Advertising content		3	10
66. Advertising psychological			
67. Advertising behaviors			1
68. Other advertising			2
69. Advertising learning			
71. General effects		1	1
TOTALS	69	64	126

*numbers here correspond to numbers shown in appendix 3 which provides definitions for each of the above categories.

for 74% of independent variables in the studies: content types (41%); "bad" content (13%); time spent with medium (10%); and specific medium content (10%).

For the sample as a whole, the most frequent dependent variables are: learning, viewing patterns, antisocial behavior, attitudes, time spent with the media, and "bad" psychological variables (e.g., dreamy imagination, sleeplessness, dormant sexual emotions, arousal, fear, anger, etc.). Although there is more variation across media here, it is again the case that naming a few variables accounts for the majority of dependent variables studied for each medium (see Table 4.3). For television, the most frequently mentioned dependent variables are: viewing patterns (10%); learning (10%); antisocial behaviors (9%); time spent with medium (17%); attitudes (6%); neutral behaviors (6%); and advertising psychological effects (6%), accounting for 54% of dependent variables in studies of television and children. For radio, three variables account for 39% of all dependent variables studied: viewing patterns (18%); time spent with medium (9%); and learning (12%). For motion pictures, four variables account for 55% of dependent variables used to study motion pictures and children: role models (18%); antisocial behavior (15%); attitudes (11%); and viewing patterns (11%).

For the entire sample, the six most frequently mentioned "other" variables are: individual characteristics (e.g., health, birth order, grade, etc.), intelligence, demographics, home structure, home psychological environment, and viewing patterns. Table 4.4 breaks these variables by medium, showing an astonishing degree of agreement across medium concerning important other variables to be studied. For television, three variables accounted for 51% of all variables mentioned: demographic (17%); individual characteristics (17%); and development (17%). For motion pictures, four variables account for 49% of all other variables studied: demographic (9%);

Table 4.3
Dependent Variables in Studies
By Motion Pictures, Radio, and Television

Variables*	Motion Pictures	Radio	Television
1. Attitudes	11	6	8
2. Parent's Attitudes	2	1	
4. Home, Psychological		1	1
5. Home, Structure		1	1
6. Peer			2
7. Demographic	1		
8. Individual Characteristics	2	2	
9. Development	4	1	3
10. Intelligence	3	2	1
11. Medium Characteristics			
12. View with whom		1	
16. How view	1	1	2
17. Time spent with medium	5	9	9
18. Viewing patterns	11	17	12
19. Other media behaviors			1
21. Psychological, watching	3	3	2
22. Viewing skills			2
25. "Bad" content			
26. "Good" content			
27. Specific content		2	
28. Role models	1		2
29. Learning	17	12	13
30. Content types	1	4	2
35. Prosocial behavior			2
36. "Good" behavior	1		
37. Neutral behavior		1	7
38. "Bad" Behavior	1	2	2
39. Antisocial behavior	14	6	11
45. Prosocial psychological	3	1	
46. Interest	3	4	2
47. Dreams		2	2
48. "Bad" psychological	4	6	5
49. "Bad" mental	1	3	1
55. Perceived reality	4	1	5
56. Viewing intervention			
57. Industry intervention	1		
58. Perceptions of violence			3
59. Kid's other activities	1	5	3
60. Frustration			
65. Advertising content			
66. Advertising psychological			7
67. Advertising behaviors		2	5
68. Other advertising			
69. Advertising learning	1	1	4
71. General effects			4
TOTALS	96	97	124

*numbers here correspond to numbers shown in appendix 3 which provides definitions for each of the above categories.

Table 4.4

Other Variables in Studies
By Motion Pictures, Radio, and Television

Variables*	Motion Pictures	Radio	Television
1. Attitudes	3		1
2. Parent's Attitudes	1	2	1
4. Home, Psychological	3	1	6
5. Home, Structure	5		6
6. Peer			2
7. Demographic	9	5	16
8. Individual Characteristics	16	9	16
9. Development	12	7	16
10. Intelligence	12	11	7
11. Medium Characteristics	4		2
12. View with whom			
16. How view	2		4
17. Time spent with medium	2	1	3
18. Viewing patterns	3	2	6
19. Other media behaviors	1	1	2
21. Psychological, watching	1	1	2
22. Viewing skills			
25. "Bad" content			
26. "Good" content			
27. Specific content		2	2
28. Role models	2		2
29. Learning		1	
30. Content types			1
35. Prosocial behavior			
36. "Good" behavior			
37. Neutral behavior	1		1
38. "Bad" behavior			
39. Antisocial behavior			1
45. Prosocial psychological			
46. Interest			
47. Dreams			
48. "Bad" psychological			
49. "Bad" mental	1		
55. Perceived reality		1	1
56. Viewing intervention	2	1	2
57. Industry intervention	3	1	1
58. Perceptions of violence	1	1	
59. Kid's other activities			1
60. Frustration	4		2
65. Advertising content			1
66. Advertising psychological		1	4
67. Advertising behaviors			1
68. Other advertising		1	
69. Advertising learning			1
71. General effects			
TOTALS	88	49	111

*numbers here correspond to numbers shown in appendix 3 which provides definitions for each of the above categoreis.

individual characteristics (16%); development (12%); and intelligence (12%). For radio, three variables account for 54% of all other variables studied: individual characteristics (18%); development (14%); and intelligence (22%).